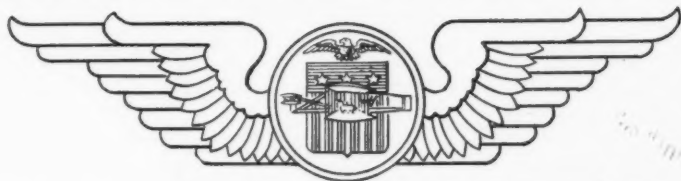


# CIVIL AERONAUTICS JOURNAL



ISSUED TWICE MONTHLY BY THE CIVIL AERONAUTICS AUTHORITY

VOLUME 2

WASHINGTON, FEBRUARY 15, 1941

NUMBER 4

## \$40,000,000 Airport Program Enters Construction Stage

### Work Phase Reached Four Months After Funds Appropriated

The entire \$40,000,000 program of the Civil Aeronautics Administration for construction and improvement of 200 airports vital to national defense will have entered the construction phase by mid-February, or 4 months after the funds were made available, Col. Donald H. Connolly, Administrator of Civil Aeronautics has announced.

By that time, he explained, all of the contract projects will have been advertised for competitive bidding by regional managers of the Civil Aeronautics Administration, under the decentralization policy which has been adopted to speed completion of the work.

The 200 sites have been approved by the Secretaries of War, Navy, and Commerce. The majority are located close to the boundaries of the United States, for strategic reasons. Present and future usefulness to civil aviation also is being considered, however. In many cases, the location chosen already has some improvements, indicating, according to Colonel Connolly, that it "is likely to have some commercial justification or public money would not already have been spent upon it."

Land for the airports is provided by local governments, from which the C. A. A. has also secured agreements to main-

tain and operate the facility once it is finished. In some projects, labor will be supplied by the W. P. A.; others will be carried out under contract, with supervision by engineers of the C. A. A. or the Army.

The present appropriation for airport work is the first ever made directly to the civil aviation agency of the Government, Colonel Connolly pointed out. Heretofore Federal money has been available for this purpose only through the public works or work relief programs, approximately \$200,000,000 having been spent in this way since 1933. The current grant was made following presentation to Congress by the C. A. A. of a comprehensive survey which reported that the rapid growth of air commerce necessitated increasing our 2,300 airports to 4,000 within the next 6 years, at an estimated cost of \$560,000,000, and that the development of additional fields was necessary to national defense.

For continuing airport work during the fiscal year beginning July 1, the President has requested Congress to allow the C. A. A. \$23,500,000.

### Standardization Center Established at Houston

Establishment at Houston, Tex., of a Standardization Center for flight and maintenance supervisors of the Civilian

Pilot Training Program and for inspector personnel of the Inspection Service has been announced by Col. Donald H. Connolly, Administrator of Civil Aeronautics.

The new Center, located at the Houston Municipal Airport in quarters recently vacated by a National Guard squadron, will bring together all regular standardization equipment of the Civil Aeronautics Administration in the fields of instrument and air transport flying and pilot training, Colonel Connolly said.

For about 3 years, Government aviation inspectors have been standardized on flight tests for instrument and airline transport ratings by a Federal unit at Wayne County Airport, Mich. Certain personnel of the Army, Navy, and the aviation industry also have been admitted to these classes. In addition, a modern multi-engine plane, owned by the Government, has gone from region to region in order to maintain competency in the operation of such craft of as many as possible of the Administration's more than 300 inspectors. Fast-moving aviation developments, however, have rendered these facilities inadequate, Colonel Connolly declared, and this equipment is being moved to the enlarged center at Houston.

Inspectors from all over the United States will be sent to the new center for 2 weeks of standardization work each year to keep them abreast of the newest developments and practices, and key personnel of the industry will be admitted to a greater extent than at present. The expanded facilities also will make possible uniform standards for supervisors of the Civilian Pilot Training Service throughout the program.

The Administration is counting on the good flying weather which prevails during most of the year at Houston to permit increased activity of the enlarged facility.



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Commercial Aircraft  
Priorities Group  
Appointed

Appointment of the complete personnel of the Commercial Aircraft Priorities Committee has been announced by Edward R. Stettinius, Jr., Director of Priorities. Establishment of a Commercial Aircraft Priorities Section, with Arthur B. Whiteside as executive officer, was announced on January 13. Mr. Whiteside is on leave from his position as president of Dun & Bradstreet, New York City.

The Commercial Aircraft Priorities Committee will recommend policies bearing on the use of priorities in this field to the Director of Priorities, who also will be advised by Consumer, Price, and Labor Consultants.

Such policies, when approved, will be carried out under the direction of Mr. Whiteside.

Complete personnel of the committee follows: Col. John H. Jouett, president of the Aeronautical Chamber of Commerce; Col. Donald H. Connolly, of the Civil Aeronautics Administration; C. R. Smith, Aeronautical Consultant to the Transportation Division of the National Defense Advisory Commission; Capt. D. C. Ramsey, Representing the Navy; Col. E. L. Lyons, representing the Army; and Merrill C. Meigs, head of Aeronautical Section of the Production Division, who will be an ex-officio member of the committee.

Marion P. Crews to Head  
Airworthiness Section

Marion P. Crews, for 9 years an aviation engineering official in Government agencies and for the past 2 years Chief of the C. A. A.'s Midwest Aircraft Airworthiness section at Kansas City, has been promoted to Chief of the C. A. A. Airworthiness Section, Bureau of Safety Regulation, in Washington.

He succeeds Jack G. Gray, who resigned from the post to accept a position with the Aeronautical Chamber of Commerce.

Mr. Crews obtained his Bachelor of Science degree in electrical engineering at Washington University of St. Louis in 1924, and for 4 years thereafter was employed at his profession by the Kansas City Power & Light Co.

From 1928 to 1931 he was assistant chief engineer and chief engineer of an aircraft manufacturing concern, and in the winter of 1931-32 worked with Benny Howard on design features of Mr. Howard's racing airplanes, Mike and Ike.

Early in 1932 he joined the engineering section of the Aeronautics Branch of the Department of Commerce, remaining in the same work after the organization became the Bureau of Air Commerce

and until 1936, when he was assigned, through the Manufacturing Inspection Service, to checking technical data on the Boeing "Yankee Clipper" and the Boeing Stratoliner. He stayed at this work until December 1938, when he was made Midwest Chief of the Aircraft Airworthiness section.

## Trinidad-Barbados Air Mail

Air-mail service between Trinidad and Barbados, at present of a daily frequency, has been resumed by the KLM line, thus providing through air-mail service from the United States to Barbados, according to the Post Office Department. The total postage required on articles for Barbados for such through service is 25 cents per half ounce.

Aeronautical Legislation  
Pending

Following is a listing and a brief summary of proposed aeronautical legislation now pending before the Seventy-seventh Congress:

- H. R. 1003—AERONAUTICAL RESEARCH (Randolph); a bill authorizing an appropriation for the construction and equipment at Morgantown, W. Va., of research facilities for aeronautical research; referred to the Committee on Military Affairs.
- H. Res. 18—AIR LINE ACCIDENTS (Hinshaw); a resolution providing for a special committee to investigate air-line accidents; referred to the Committee on Rules.
- S. 1—CIVIL AERONAUTICS AUTHORITY (McCartan); a bill providing that the Civil Aeronautics Authority shall be an independent establishment of the Government; referred to the Committee on Interstate Commerce.
- S. 7—AVIATION SALVAGE (McCartan); a bill to enact the Aviation Salvage at Sea Convention into statute law in the United States; referred to the Committee on Commerce.
- S. 8—DEVELOPMENT OF AIRCRAFT LANDING AREAS (McCartan); a bill to provide for Federal cooperation with the States in the development of aircraft landing areas adequate to provide for the national defense, the Postal Service, and civil aeronautics; referred to the Committee on Commerce.
- S. 17—PROHIBITING EMPLOYMENT OF ALIENS IN AIRCRAFT INDUSTRY (McCartan); a bill prohibiting the employment of aliens within the United States by persons manufacturing aircraft for the Government, and for other purposes; referred to the Committee on the Judiciary.
- S. 53—AIRCRAFT SAFETY (Mrs. Caraway); a bill to amend the Civil Aeronautics Act of 1938 to provide additional safety for passengers in aircraft; referred to the Committee on Commerce.
- S. Res. 7—COMMITTEE ON CIVIL AVIATION AND AERONAUTICS (McCartan); a resolution amending the rule XXV of the Standing Rules of the Senate by inserting "Committee on Civil Aviation and Aeronautics, to consist of 13 Senators"; referred to the Committee on Rules.
- H. J. Res. 51—PROMOTION OF SAFETY IN AIR TRAVEL (Peterson of Florida); a joint resolution for the promotion of safety in air travel, by the construction of uniform identifying land markers; referred to the Committee on Interstate and Foreign Commerce.
- S. 290—CIVILIAN GLIDER PILOT TRAINING (McCartan); a bill to establish a Civilian Glider Pilot Training Division in the Civil Aeronautics Authority; referred to the Committee on Commerce.

## 11 Civil Air Schools Get Army Contracts

Award of contracts for primary flying training to 11 additional civilian schools has been announced by the War Department. First classes at the new schools will begin about March 22, and new classes will enter each 5 weeks thereafter. Approximately 100 flying cadets will be in training at each school.

The new schools which are added to the 17 previously selected are as follows: Air Activities of Texas, Inc., Corsicana, Tex.; Brayton Flying Service, Inc., Cuero, Tex.; Embry-Riddle Co., Arcadia, Fla.; Graham Aviation Co., Americus, Ga.; Lou Foote Flying Service, Stamford, Tex.; Oklahoma Air College, Inc., Oklahoma City, Okla.; Palo Alto Airport, Inc., King City, Calif.; Pine Bluff School of Aviation, Pine Bluff, Ark.; Rankin Aeronautics Academy, Inc., Tulara, Calif.; Southern Aviation School, Camden, S. C.; and Southwest Airways, Inc., Phoenix, Ariz. Seven of this group are operators in the C. P. T. Program.

Under original plans of the Air Corps to step up the training rate of students to an output of 7,000 pilots a year, the maximum rate of enrollment was to have been attained on November 30, 1940, when a class of 1,292 cadets was to have started training. However, under an expansion program which required the immediate enlargement of training facilities, the schedule of students enrolling was increased. Therefore, with the addition of the 11 new schools, it is expected that 2,393 students will enroll in civilian schools on March 22. Plans for future classes contemplate enrollment of students in groups corresponding to the size of the class of March 22.

All elementary flight training will be conducted at these schools. Basic and advanced training will be given at the three Air Corps Training Centers: The Gulf Coast Training Center, The Southeast Training Center, and the West Coast Training Center.

Through correlation of the civilian flying schools with the Air Corps Training Centers, Air Corps pilot training is accomplished in three phases: 10 weeks' elementary training at civilian flying schools, 10 weeks' basic training at an Air Corps Training Center; followed by 10 weeks' advanced training at an Air Corps Training Center.

The 17 previously selected civilian schools follow: Alabama Institute of Aeronautics, Tuscaloosa, Ala.; Allan Hancock College of Aeronautics, Santa Maria, Calif.; Cal-Aero Training Corp. at Glendale, Ontario, and Oxnard, Calif.; Chicago School of Aeronautics, Glenview, Ill.; Dallas Air College, Dallas, Tex.; Darr Aero Tech, Albany, Ga.; Lincoln Flying School, Lakeland, Fla.; Mississippi Institute of Aeronautics, Jackson, Miss.; Missouri Institute of Aeronautics, Sikeston, Mo.; Parks Air College, East St. Louis, Mo.; Ryan School of Aeronautics at Hemet and San Diego, Calif.; Spartan School of Aero-

## Private Flying

### Airways and Airport Control Procedure Irregularities Analyzed By C. A. A.

#### Facts Added To Aid More General Observance

While younger pilots especially are not thoroughly familiar with air-traffic control and airport-traffic control procedures, experienced pilots, too, occasionally disregard basic procedures, according to an ANALYSIS OF IRREGULARITY REPORTS SUBMITTED BY CONTROL TOWER OPERATORS, made public by the Airways Operation Division of the Civil Aeronautics Administration.

"Another interesting fact and perhaps the most significant is that corrective measures are not taken in every case and hence certain irregularities have been repeated time after time," the analysis declared.

The analysis includes a summary (chart not reproduced here) of irregularity reports for the first 8 months of 1940. Facts revealed by the analysis, it was stated, should be helpful to airport officials in indicating more efficacious procedures in the handling of irregularities and in suggesting more uniform treatment of such irregularities to the end that more general observance will be obtained.

#### EXCERPTS FROM THE ANALYSIS

According to the reports received, the most common irregularities in order of their frequency are:

navies at Muskogee and Tulsa, Okla.; and Texas Aviation School, Fort Worth, Tex. Nine of the schools are also participating in the C. P. T. Program.

Unmarried citizens of the United States, who are between the age of 20 and 26, inclusive, in good health, and able to meet the educational requirements, are eligible to become flying cadets. Educational requirements are few and may be met by a general examination. Exemption from this examination may be obtained by possession of credits for 2 years of college work. Eligible candidates may obtain applications from the Commanding General of the Corps Area in which they reside, or directly from the Adjutant General, War Department, Washington, D. C.

1. Took off without permission—151.
2. Taxied without permission—103.
3. Disregarded recommended radio procedures for airport traffic control—92.
4. Landed without permission—76.

In accordance with its announced intention when irregularity reports were requested, the Airways Operation Division has not used, and does not contemplate using these reports as a basis for formal violation reports. It is assumed that whatever action seems necessary will be taken by the airport agency unless the matter is referred to a Civil Aeronautics Administration inspector. It appears, however, that several suggestions may be helpful.

The amount of arguing which seems to ensue after any check-up on alleged irregularities at certain airports indicates either a lack of thorough understanding of what procedure should be followed or a lack of respect for airport employees. The first of these can be eliminated at a conference of operators; the second should not be tolerated, although the airport management should be sure that it is not encouraging arguments by its attitude.

By far the greater percentage of irregularities appear to be due to lack of information and while the initiation of an educational program on top of the heavy load carried by many tower operators may seem almost too great a burden, the smoothing out of traffic problems as a result of such a program may more than make up for the time it will take for the first few months.

The following are some of the corrective measures taken at various airports:

1. The offending pilot may be required to spend a certain amount of time in the tower.
2. If the offender appears to be grossly ignorant of traffic rules he may be required to pass a written examination on Federal and local rules.
3. The offender may be grounded insofar as the local airport is concerned for a week, 10 days, or a month, depending upon the seriousness of the irregularity. At some airports a local permit or

license is issued all local pilots and at such places the grounding of the pilot is accomplished by picking up the local permit for whatever period seems appropriate.

4. Irregularities which are also violations of the Civil Air Regulations are reported to an inspector of the Civil Aeronautics Administration.
5. Student pilots are required to spend an hour in the control tower before they solo.
6. Taxi patterns and sketches showing areas reserved for training under various wind conditions are published.
7. Pilots are required to initial an official copy of all local rules to indicate they have read and understand all provisions.

Obviously airport traffic control will not be fully effective until pilots have some reasonable assurance that everyone concerned is conforming to standard procedures. One pilot out of step may present a hazard to a hundred who are proceeding "according to Hoyle." It is hoped that airport agencies will continue to submit irregularity reports so that the encouragement of standard practices can be continued.

## Caution Urged In Practicing Forced Landings

A graphic illustration of "Suitable Landing Areas for Simulated Forced Landings on Take-offs" has been prepared by the Civil Aeronautics Administration for distribution to all flight instructors participating in the Civilian Pilot Training Program.

In issuing the illustration, the C. A. A. makes the following suggestions to the instructors:

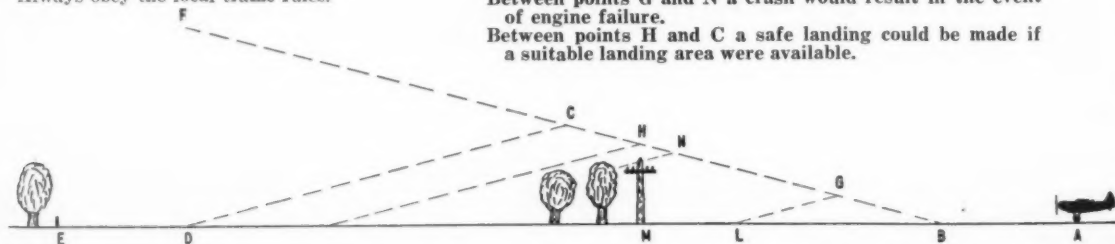
Use judgment in emergencies on take-offs.

Never give an emergency unless there is a suitable area available that can be reached if necessary.

Examples below (illustrated) show the area that is suitable in an emergency on the take-off.

If a suitable area is not available do not simulate forced landings at that airport.

Always obey the local traffic rules.



## Air Agency Certificates

### Schools Certified

Archle Baxter, Flying Service, Inc., Floyd Bennett Field, Brooklyn, N. Y., approved December 31, 1940, as an advanced flying school (private and commercial).

Blair Flying School, Municipal Airport, Blair, Nebr., approved December 31, 1940, as a primary flying school (private).

Finfera Flying Service, Logan Field, Dundalk, Md., approved December 30, 1940, as an advanced flying school (private and commercial).

Flying Dutchman Air Service, Somerton Airport, Philadelphia, Pa., approved January 8, 1941, as a primary flying school (private).

Hobley-Maynard Air Service, Inc., New Orleans Airport, New Orleans, La., approved January 14, 1941, as an advanced flying school (private and commercial).

Johnstone Flying Service, Albert Whitted Municipal Airport, St. Petersburg, Fla., approved December 31, 1940, as a primary flying school (private).

Kansas City Air College, 838 Richards Road, Kansas City, Mo., approved January 24, 1941, as an advanced flying school (private and commercial).

Knapp Flying Service, Box 535, Clarksville, Tenn., approved January 13, 1941, as an advanced flying school (private and commercial).

Robertson Aircraft Corporation, Lambert-St. Louis Municipal Airport, Robertson, Mo., approved January 24, 1941, as an advanced flying school (private and commercial).

Rockaway Airport, Beach Channel Drive and Fifty-second Street, Edgemere, N. Y., approved December 30, 1940, as a primary flying school (private).

St. Louis School of Aeronautics, Inc., Lambert-St. Louis Municipal Airport, Robertson, Mo., approved January 25, 1941, as an advanced flying school (private and commercial).

Ernest L. Sink, Roseburg Municipal Airport, Roseburg, Oreg., approved January 8, 1941, as a primary flying school (private).

Tri-Cities Aviation School, Inc., Tri-Cities Airport, Endicott, N. Y., approved as an advanced flying school (private and commercial).

### Change in List of Schools

Change name of Allen School of Aeronautics to Allen Airways, State Airport, Hillsgrove, R. I.

Delete Floyd Bennett Flying School, Brooklyn, N. Y., operating in conjunction with School of Education, New York University, N. Y.

Delete Inter City Airlines, Inc., Boston Municipal Airport, East Boston, Mass.

## Repair Stations Certificated

Banks Maxwell Propeller Co., R. F. D. No. 7, box 11, Fort Worth, Tex., approved January 10, 1941, for repair of aircraft wooden propellers.

Albert E. Padaga, 340 Park Street, Wisconsin Rapids, Wis., approved January 22, 1941, for repair of aircraft welded steel tube structure, not including fittings; aircraft steel fittings; aircraft aluminum alloy structure, not including fittings.

New Orleans Airport, Aircraft Repair Station, New Orleans, La., approved January 21, 1941, for repair of aircraft welded steel tube structure, not including fittings; aircraft wooden structure, not including box and laminated spars, wood covered fuselages, wings, or control surfaces; aircraft fabric covering; aircraft wood covered fuselages, wings, and control surfaces, and box and laminated spars; aircraft steel fittings; aircraft aluminum alloy structure, not including fittings; aircraft aluminum alloy fittings; aircraft assembly; aircraft wooden propellers.

Valley Airways, Inc., box 148, Winchester, Va., approved January 16, 1941, for repair of aircraft welded steel tube structure, not including fittings; aircraft wooden structure, not including box and laminated spars, wood covered fuselages, wings or control surfaces; aircraft fabric coverings; aircraft steel fittings; aircraft assembly.

West Virginia Airways, Inc., box 371, Charleston, W. Va., approved December 30, 1940, for repair of aircraft welded steel tube structure, not including fittings; aircraft wooden structure, not including box and laminated spars, wood covered fuselages, wings, or control surfaces; aircraft fabric covering; aircraft steel fittings; aircraft assembly.

Southeastern Air motive Co., 10707 Northwest Forty-second Avenue, Miami, Fla., approved January 3, 1941, for repair of aircraft welded steel tube structure, not including fittings; aircraft wooden structure, not including box and laminated spars, wood covered fuselages, wings, or control surfaces; aircraft steel fittings; aircraft aluminum alloy fittings; aircraft assembly; aircraft engines.

Baltimore Municipal Airport, Logan Field, City Airport, Dundalk, Md., approved January 8, 1941, for repair of aircraft welded steel tube structure, not including fittings; aircraft wooden structure, not including box and laminated spars, wood covered fuselages, wings, or control surfaces; aircraft fabric covering; aircraft steel fittings; aircraft aluminum alloy structure, not including fittings; aircraft assembly; aircraft engines.

### Change in List of Repair Stations

Delete Shultz Repair Depot, Phillips Airport, Bartlesville, Okla.

Change name of Boston-Maine Airways, Inc., to Northeast Airlines, Inc., Boston Municipal Airport, East Boston, Mass.

## Suitable Landing Areas for Simulated Forced Landings

A to B—Take-off run.

B to F—Normal climb path.

C to D—Normal glide path.

D to E and L to M—Length of run after landing.

Then a safe emergency on take-off could be made at any time between points B and G.

Between points G and N a crash would result in the event of engine failure.

Between points H and C a safe landing could be made if a suitable landing area were available.



## U-H-F Airway Approaching Completion

### Ultra-High-Frequency Radio Range Equipment To Get Service Test on New York-Chicago Route

Envisaging the day when all airways will be equipped with relatively static-free ultra-high-frequency radio equipment, the Civil Aeronautics Administration is installing 10 experimental U-H-F transmitting stations along the New York-Chicago airway.

It is expected that installation of at least eight of the transmitters will be concluded by mid-spring, and extensive service tests of the new equipment can be initiated. The equipment already has undergone comprehensive tests at Indianapolis, Pittsburgh, and Los Angeles, but it is desired to test a series of the stations under actual air-line operating conditions. The three air lines operating along the airway are scheduled to install suitable receiving equipment in their aircraft for this service testing.

The first operations probably will be made only on the first eight stations, since installation of equipment at Chicago and Newark, the two terminal points, has been delayed. However, aircraft operating along the route can use either the ultra-high-frequency range or the paralleling intermediate-frequency range, so this delay will present no major difficulties in conducting the service operations.

The tests are designed to give practical experience in operations over the new range, and also will offer opportunities for comparison with intermediate-frequency radio ranges. Should the ultra-high-frequency equipment meet expectations in the practical operations, it is expected that installation along other airways will be made in the near future, provided sufficient funds are made available.

Installation of the new equipment built by Heintz & Kaufman, South San Francisco, is being carried out by the C. A. A.'s Airways Operation Division. Following is a list of stations, together with the status of installation and estimated commissioning dates. (The list was prepared in late January.)

1. Chicago—Installation indefinitely postponed.
2. Millersburg, Pa.—Installation completed, tune-up and flight check now under way.
3. Black Moshannon, Pa.—Transmitting equipment installed, radiating equipment expected February 1, estimated tune-up and commissioning date, February 8.
4. Toledo, Ohio.—Transmitting equipment installed, radiating equipment expected February 8, estimated commissioning date, February 15.

## Airways and Airports

5. Cleveland, Ohio.—Transmitting equipment installed, radiating equipment expected February 15, estimated commissioning date, February 22.

6. Millbrook, Pa.—Transmitting equipment installed, radiating equipment expected February 21, estimated commissioning date, March 1.

7. Sunbury, Pa.—Transmitting equipment installed, radiating equipment expected February 28, estimated commissioning date, March 8.

8. Easton, Pa.—Expect to complete transmitting equipment installation by February 10, radiating equipment expected March 8, estimated commissioning date, March 15.

9. Chicago Heights, Ill.—Transmitting equipment installation expected by March 19, radiating equipment expected March 14, estimated commissioning date, March 24.

10. Newark—Installation indefinitely postponed.

### New Tabulation of Radio Aids Includes Airways Maps

In an effort to present more complete information to pilots, the monthly tabulation of AIR NAVIGATION RADIO AIDS of the Civil Aeronautics Administration now includes a series of 19 airway radio facility maps covering the entire United States. These maps formerly were prepared in quadrants and were available only on request to the C. A. A.

An innovation in the present series is that the colored civil airways are superimposed, as well as all airway traffic control areas, thereby making the maps more valuable to the aerial navigator. The tabulation also carries a map of designated radio fixes, with listing of the mileage between each fix.

To facilitate cross-country flight planning and execution, the tabulation of "Air Navigation Radio Aids," the "Weekly Notice to Airmen," and the "Airport Directory," each prepared by the Flight Information Section of the C. A. A., all have been given a uniform format of 8 by 10½ inches so that the three publications will fit into a single manual folder, which can be handled easily by the pilot in an aircraft.

### New Airport Directory Now in Preparation

Preparation of the latest edition of the AIRPORT DIRECTORY is now under way and should be completed within the next 2 months. This annual publication is compiled by the Flight Information Section of the Civil Aeronautics Administration.

Differing from the last compilation, the new directory will be in one volume instead of seven, on a national instead of a regional basis. Also, airports will be listed in the new directory according to ownership, whereas heretofore, airports have been listed according to the

type of service offered. For instance, in past directories, a small municipal airport that offered limited servicing was listed as an *auxiliary* airport. Under the new system, this would be included under the *municipal* heading.

### W. P. A. Defense Projects Include \$6,807,837 for Civil Airport Aids

Included in the \$157,000,000 of W. P. A. funds which were earmarked for national-defense projects during the first 6 months of the fiscal year, \$6,807,837 was for civil airport projects, according to Howard O. Hunter, Acting Commissioner of Works Projects. Also included in the total was \$3,700,391 for Army and \$1,745,777 for Navy projects, as well as a supplementary allotment of \$17,821,680 to a nation-wide project for vocational training in defense industries.

Among the important civil airport projects approved by the W. P. A. during December are those at Mobile, Ala., for \$330,798; Lindberg Field, San Diego, Calif., \$395,000; Omaha, Nebr., municipal airport, \$490,614; and Laconia, N. H., \$447,698. Two projects for the New Orleans airport totaled \$798,516; one for \$260,269 calling for construction of a hangar and administration building, and the other for \$538,247 for improvements to the road leading to the airport.

Two projects for the Naval Air Station at Cape May, N. J., total \$657,597. One of these, for \$242,007, calls for extension of the flying field and improvements to runways, taxi strips, and lighting and communications systems, while the other, for \$415,590, is for repairs and improvements to buildings. The Navy also sponsors a project for \$308,206 for construction of a Naval Reserve Air Training base at New Orleans.

In the District of Columbia, the Army is sponsor for a \$258,707 project for work at Bolling Field. Extensions of runways and aprons, paving, grading, and drainage work is contemplated.

### Temporary Airports of Entry

Certain airports and seaplane bases are designated as airports of entry through which aircraft arriving from foreign countries may clear customs and immigration.

A complete list of such airports appeared in the CIVIL AERONAUTICS JOURNAL, volume 2, No. 1, dated January 1, 1941. The following temporary airport of entry has been redesignated for another period of 1 year following the date given:

Calexico Municipal Airport, Calexico, Calif., January 10, 1941.

# State Aviation Officials Hold Regional Conference

## Airport Traffic Problems Discussed at Columbia Meeting of N. A. S. A. O.

The first regional conference called by the National Association of State Aviation Officials—designed for the purpose of exchanging opinion with airport managers and other interested parties on airport-traffic problems—was held in Columbia, S. C., recently. The Civil Aeronautics Board and the Civil Aeronautics Administration cooperated in holding the conference.

Included in the topics discussed were the following: Standard patterns for entering airport-traffic-control systems; systems for controlling traffic, control of student training at (1) airports where there are only a few airline schedules a day, possibly four or five, (2) at busy airline terminals, and (3) at busy, but nonairline airports; methods for numbering or lettering runways; methods for enforcement of regulations; methods for distributing changes in local regulations to all interested parties; and airport safety to prevent collisions between aircraft taxiing on ground, near hangars, and in high wind.

It is planned that similar conferences will be called for other regions. Such meetings between airport managers to discuss these topics would make the managers more conscious of their responsibilities, it was thought, as well as to encourage them to exchange information among themselves in regard to the establishment of local regulations before such regulations are made effective.

Attending the meeting were various airport managers of the southeast, the president of the N. A. S. A. O., representatives of Delta Air Lines, noncarrier operators, representatives of the Shell Oil Co., Jerome Lederer and Emory Ellington of the Civil Aeronautics Board, and John L. Huber of the Civil Aeronautics Administration.

## Airport Projects Approved

In accordance with the provisions of section 303 of the Civil Aeronautics Act, the Administrator of Civil Aeronautics has issued certificates of air navigation facility necessity, authorizing the expenditure of Federal funds in the operation of the following projects:

### ALABAMA

**MOBILE.**—\$330,798 for W. P. A. project, including constructing hangar, administration building, manager's house, aprons and taxi-strips, clearing, grubbing, grading, draining, landscaping, sodding, constructing roadway, water and sanitary sewer systems; and performing incidental and appurtenant work at new municipal airport.

### ARKANSAS

**FORT SMITH.**—\$46,526 for W. P. A. project, including paving runways, taxi-strips, aprons and ramps; grading; draining; sodding, sodding, sprigging; removing timber from approach and turning zones; fencing, installing boundary, range, and obstruction lights and rotary beacon; constructing entrance roads, driveways and parking areas, landscaping; laying water line; and performing appurtenant and incidental work at municipal airport.

### CALIFORNIA

**BAKERSFIELD.**—\$2,894 for W. P. A. project for constructing frame and plaster air-traffic control tower at Kern County Airport

## Air Navigation Facilities on Jan. 1, 1941

### AIRPORTS

Municipal airports <sup>1</sup> .....	791
Commercial airports <sup>1</sup> .....	503
Civil Aeronautics Administration intermediate fields <sup>1</sup> .....	288
Army airdromes <sup>1</sup> .....	70
Navy Fields <sup>1</sup> .....	21
Marked auxiliary fields <sup>1</sup> .....	492
Private fields <sup>1</sup> .....	136
Miscellaneous Government.....	31
<b>Total.....</b>	<b>2,332</b>

### Airports and landing fields having any night lighting equipment:

Municipal.....	316
Commercial.....	96
Intermediate.....	288
Army.....	35
Navy.....	14
Auxiliary.....	19
Private.....	9
<b>Total.....</b>	<b>777</b>

### SEAPLANE BASES

Army, Navy, Coast Guard.....	296
Other seaplane bases and anchorages.....	30
<b>Total.....</b>	<b>326</b>

### Seaplane bases having any night lighting equipment:

Navy and Coast Guard.....	5
Other bases and anchorages.....	10
<b>Total.....</b>	<b>15</b>

### RADIO AIDS

Ranges.....	283 (2 in Hawaii) (6 in Alaska)
Range stations simultaneous, with voice.....	187 (1 in Hawaii) (6 in Alaska)
Range stations nonsimultaneous, with voice.....	82
Range stations, no voice.....	14 (1 in Hawaii)
Broadcast stations.....	115 (1 in Hawaii) (8 in Alaska)
Broadcast stations, simultaneous.....	110 (1 in Hawaii) (5 in Alaska)
Broadcast stations, non-simultaneous.....	5 (3 in Alaska)
Marker stations.....	42
Fan markers.....	108
Voice (only) stations.....	13 (7 in Alaska)
2 markers (not at range stations).....	2

<sup>1</sup> Municipally operated, servicing available.

<sup>2</sup> Privately operated, servicing available.

<sup>3</sup> Operated by C. A. A., no servicing available.

<sup>4</sup> Army operated, open to service planes only.

<sup>5</sup> Navy operated, open to service planes only.

<sup>6</sup> Limited area, no servicing.

<sup>7</sup> Privately operated, no servicing.

near Bakersfield, work including the removal of existing beacon light from present tower to top of control tower; installation and connection of all necessary utility services, and performance of appurtenant and incidental work at Kern County Airport.

**SANTA MONICA.**—\$223,100 for W. P. A. project, including constructing runway; clearing; excavating; grading; surfacing, removing control tower, water mains, trees, and sod and performing appurtenant and incidental work at municipal airport (Clover Field).

### FLORIDA

**LAKE WALES.**—\$43,446 for W. P. A. project for constructing of two new runways 500 by 2,600 feet; enlarge present runway to 500 by 2,700 feet; construct 80- by 80-foot hangar; construct administration building; and perform incidental and appurtenant work at municipal airport.

### GEORGIA

**AUGUSTA.**—\$112,325 for W. P. A. and C. A. A. projects, including excavation; placing topsoil; paving runways and taxiways; relocating and paving roadway; installing lighting, heating, plumbing, drainage system; lowering water mains; constructing catch basins, sand traps, manholes, fences, and administration building; sodding; planting, demolishing, salvaging, moving, reconstructing, and enlarging existing hangar and performing appurtenant and incidental work at Daniel Field.

### KANSAS

**WICHITA.**—\$328,782 for W. P. A. project, including excavating, earth compaction, grading, paving for runways and connections, removing and restoring surf on disturbed areas, sodding, sodding, installing boundary and runway lights, providing drainage structures, constructing storm sewers and performing incidental and appurtenant work at municipal airport.

### LOUISIANA

**NEW ORLEANS.**—\$308,206 for W. P. A. project, including the preparation of the site, consisting of clearing land of existing frame shacks, fences, etc., excavating, grading, filling and leveling entire site; providing necessary drainage ditches including the laying of approximately 500 feet of concrete pipe to provide for additional drainage required; seeding and sodding entire acreage, fine grading, rolling and hard-surfacing two 3,000- by 150 feet runways, surfaced with 4 inches of a sand-asphaltic treatment; paving concrete turn-arounds at ends of each runway and other related items of work at Naval Reserve Air Training Base.

Also \$200,269 for W. P. A. project, providing for the construction of buildings, grounds, and facilities for National Guard Observation squadron base, buildings to be located east of present New Orleans airport site.

### MISSISSIPPI

**GREENVILLE.**—\$119,436 for W. P. A. project, including clearing, grubbing, removal of existing obstructions, grading, draining, sodding, paving of runway, fencing, lighting, and constructing of Administration and hangar buildings, and performing incidental and appurtenant work at Greenville Airport.

**STARKVILLE.**—\$53,039 for W. P. A. project for constructing minor structures, curb gutter, sidewalks, fences, paint buildings, install additional culinary water system, utility lines, landscaping and incidental and appurtenant work at municipal airport.

### MONTANA

**BUTTE.**—\$47,033 for W. P. A. project, including grading, oiling and surfacing runways; constructing drainage structures, rehabilitating border lighting system; and performing incidental and appurtenant work at municipal airport.

### NEW HAMPSHIRE

**GILFORD.**—\$447,698 for W. P. A. project, for construction of two hard-surface runways; one 150 by 4,000 feet, and one 150 by 3,500 feet; 500 feet wide landing strips; grub and

(Continued on page 59)

# Aeronautical Defense Contracts

Of the approximately \$111,000,000 in Army and Navy contracts cleared by the National Defense Advisory Commission during the week of January 16, \$21,742,183 was for aeronautical supplies and airport construction. A list of these contracts follows:

Brewster Aeronautical Corporation, \$4,544,287 for airplanes; Continental Motors Corporation, \$10,715,019 for engines and spare parts; Goode Construction Co., \$1,187,127 for construction of an airport at Charlotte, N. C.; McCloskey & Co., \$4,763,750 for construction of an air base at Borinquen Field, Puerto Rico; and the Aviation Corporation (Republic Aircraft Products Division), \$532,000 for construction of additional plant facilities and equipment at Aviation Corporation plant.

Included in the War Department Corps of Engineers contracts cleared by the Commission was \$5,000,000 for construction of airports. The awards follow: Lionel F. Favret & Boh Bros. Construction Co., \$1,443,000 for New Orleans municipal airport; M. T. Reed Construction Co., \$1,377,000 for Jackson, Miss., municipal airport; Morgan and Shuffelbarger, \$1,187,000 for Albuquerque, N. Mex., airfield; and The Caye Construction Co., Inc., \$993,000 for Manchester, N. H., airport.

## Nine Aircraft Firms Get Tax Certificates

Tax certificates of necessity—which allow manufacturers to take advantage of the special 60-month income-tax amortization provided under section 124 of the Internal Revenue Code—have been issued to 67 corporations through January 15, according to the National Defense Advisory Commission.

The rapid amortization under section 124 is granted if the plant additions made by contractors or subcontractors are found "necessary in the interests of national defense during the emergency period."

The certificates issued cover facilities costing over \$120,188,000. Of this total, nine certificates were for aircraft manufacturers, as follows: Beech Aircraft Corporation, Wichita, Kans., \$1,620,000; Bell Aircraft Corporation, Buffalo, N. Y., \$1,095,000; Boeing Aircraft Co., Seattle, Wash., \$10,737,000; Boeing Airplane Co., Wichita, Kans., \$253,000; Consolidated Aircraft Corporation, San Diego, Calif., \$3,090,000; Fairchild Engine & Airplane Corporation, New York

# Manufacturing and Production

City, \$1,372,000; Grumman Aircraft Engineering Corporation, Bethpage, Long Island, N. Y., \$3,500,000; Ryan Aeronautical Co., San Diego, Calif., \$333,000; and Western Land Improvement Co., Santa Monica, Calif., \$11,255,000. Total amount represented by these certificates for aircraft-plant facilities was \$31,882,000.

## NEW TYPE APPROVALS

(Approval numbers and dates of assignment in parentheses)

### Type Certificates

#### Aircraft

Wally Timm, Aircraft 2SA, 2-place open land monoplane. Engine, Kinner R-5, Series 2. (733, 1-15-41.)

#### Propellers

Sensenich, 76F, wood, 6 ft. 4 in. diameter, 4 ft. 2 in. to 3 ft. 8 in. pitch, 90 hp, 2,500 rpm. (760, 1-3-41.)

### New Models Added to Old Type Approvals

(Approval numbers and dates of approval of new models in parentheses)

#### Engines

Air-cooled, Franklin 4AC-176 E2 and E3, 4-cyl. horizontal opposed air cooled, 80 hp at 2,500 rpm at sea-level pressure altitude. (Type Certificate No. 221, 1-7-41.)

Wright, Cyclone GR-2600-B5, 14 cyl. radial air cooled; (Low Blower), 1,500 hp at 2,400 rpm at 6,700 ft. pressure altitude at 37.8 in. manifold pressure (High Blower), 1,350 hp at 2,400 rpm at 15,000 ft. pressure altitude at 38.8 in. manifold pressure. (Type Certificate No. 176, 1-9-41.)

#### Propellers

Sensenich, 72DF, wood, 6 ft. 0 in. diameter, 4 ft. 4 in. to 3 ft. 10 in. pitch, 90 hp, 2,500 rpm. (Type Certificate No. 734, 1-14-41.)

#### Appliances

Escanaba, skis, model EAS-200, Approved static load per ski 800 lbs. (Type Certificate No. 129, 1-9-41.)

Federal, Skis, model SC-4, Approved static load per ski 1,425 lbs. (Type Certificate No. 82, 1-14-41.)

## 1940 Aeronautic Exports Valued at \$311,757,326

The total value of aeronautic exports for December was \$32,111,229, according to the Motive Products Division, Department of Commerce. This total is the second largest monthly total ever recorded, being exceeded only by the August 1940 total, and bringing the pre-

liminary aggregate value for the year to \$311,757,326. The December total shows a 20-percent increase over the November 1940 total. The preliminary total for 1940 is a 165-percent increase over the total for 1939 and a 357-percent increase over the total for 1938.

The December exports included 364 powered land planes valued at \$17,695,601; 1 land plane minus engine, \$51,061; partial shipments of land planes to be assembled abroad, \$179,516; 2 seaplanes or amphibians, \$157,034; and 2 gliders or lighter-than-air craft, \$2,000; a total of 369 aircraft valued at \$18,085,212; 559 engines, \$6,766,373; engine parts and accessories, \$2,597,987; instruments and parts, \$1,115,269; propellers and parts, \$647,859; parachutes and parts, \$82,178; and other parts and accessories for \$2,816,351.

The principal countries of destination for December shipments were: United Kingdom, \$19,540,989; Canada, \$5,230,056; Australia, \$2,306,944; China, \$1,316,569; and Netherlands Indies, \$979,534. The United Kingdom and Canada again led in shipment of aircraft, taking 221 and 87, respectively, or a total of 83 percent of all aircraft shipments during December.

## Airport Projects Approved

(Continued from page 58)

clear, drainage; seeding, loaming, access roads, incidental and appurtenant operations and construction at Laconia Municipal Airport.

### NEW YORK

NIAGARA FALLS.—\$408,749 for W. P. A. and C. A. A. projects, including installing complete lighting system, grading and seeding grounds, constructing road and fences, improving creek channel to facilitate drainage, removing trees and undergrowth from abutting property and perform incidental and appurtenant work at municipal airport.

SYRACUSE.—\$22,967 for W. P. A. project, for constructing flight-control tower with glass-enclosed tower to house weather and radio instruments in order to facilitate safe airplane maneuvers, and performing incidental and appurtenant work at municipal airport.

### NORTH CAROLINA

GOLDSBORO.—\$168,811 for W. P. A. project, including clearing site, drainage, constructing catch basins, concrete headwalls, excavating, filling, stabilizing, and surfacing runways, topsoiling and grassing field, constructing powerline and electrical work and performing incidental and appurtenant work at new municipal airport.

### NORTH DAKOTA

FARGO.—\$83,253 for W. P. A. project, including installing water mains, sewer line, lighting and drainage facilities and performing appurtenant and incidental work at Hector Field.

(Continued in page 67)

## Air Safety

### Winter Weather Breeds Danger C. A. B. Warns

#### Bulletin Discusses Hazards of Cold-Weather Flying

The danger of flying in winter weather is the subject of the latest safety bulletin issued by the Civil Aeronautics Board. The Board warns that special care is needed for the proper maintenance of aircraft during the cold-weather months.

In its bulletin, the Board lists three "musts" that pilots should observe, and offers a brief explanation under each point. The bulletin follows:

#### Watch Your Cold-Weather Calendar Every Day of the Week!

NOVEMBER through MARCH-----

1. Watch Winter Engine and Aircraft Maintenance!
2. Don't allow Ice to "Hitch" rides!
3. Cold Engines Start Hot Fires—your best insurance: Handy extinguishers and careful "contacts."

Service your plane with extra care these days, giving particular attention to its cold-weather needs. Hangaring, refueling, starting, and actual flying require a special care in winter.

**1. Watch Winter Engine and Aircraft Maintenance.**—Make sure that the hangar in which your plane is kept is properly ventilated, clean, and its heating system safe. (Fire extinguishers should be recharged once a year and immediately after use.)

In refueling do not fill tanks to top of filler neck, because when the ship is brought into a warm hangar expansion will cause an overflow and a fire hazard.

Before using your cabin heater take it apart and check the tubes for interior or exterior deterioration. Either the exhaust pipe or the heater air tube should be a seamless pipe, preferably of stainless steel. Check your exhaust for leakage after a few hours of operation as

vibration of the ship may loosen some connection.

**2. Ice can "Hitch" rides.**—Beware of icing, both in the carburetor and on the external surfaces of the aircraft. Use your carburetor heater. With or without one, watch your R. P. M.'s for indication of power loss from icing. A paper-thin coat of frost on the wings will change the flight characteristics of your airplane. Don't fly into icing weather.

If ice is on the field in the form of frozen ruts, and tires are thin, it is very possible for a blow-out to occur. Keep tires in good condition.

Beware of mud collecting in side-wheel pants and freezing wheels after take-off. It may spoil a landing.

**3. Be Careful in Starting Engines in Cold Weather.**—In cold weather it is best to heat the oil before starting the engine. To insure cylinder lubrication, place a small quantity of hot oil in each cylinder, through the spark-plug openings or the exhaust-valve ports. Also remove cam-case covers and flush the valve gear with heated oil.

In winter a combination of overpriming and backfires results in many losses. Planes should be turned tail-to-the-wind so that in case of backfire during starting operations flames won't lick back along the fuselage, but do not wait too long before turning into the wind as engine may overheat. In event of a backfire give engine full throttle to suck flames up into air intake.

Just to make sure, good alternative procedures to be followed are: Have someone stand by with a fire extinguisher, or keep your cabin door open, with your starter assistant standing where you can quickly hand out the extinguisher.

#### [Individual Accident Reports]

#### PLANES COLLIDE IN LANDING APPROACH

Failure of the pilot of an overtaking aircraft to avoid a preceding aircraft during a landing approach caused the crash on December 9, 1939, at Curtiss-Steinberg Airport, East St. Louis, Ill., in which student pilot Evans E. Libbey was fatally injured.

Student pilot Libbey, with 2 hours solo experience, rented a Piper airplane at the airport for take-off and landing practice. While pilot Libbey was flying, Theodore L. Barbera, a student of the Army Air Corps training program, accompanied by his instructor, landed at the airport in a Stearman trainer. The instructor got out of the aircraft to per-

mit Barbera to practice take-offs and landings from the airport. Barbera, with about 1 hour of solo experience, took off some distance behind Libbey and was fully aware of the other aircraft ahead of him.

Libbey was making his second or third flight around the field and both pilots were following a designated rectangular course around the airport. The faster Stearman gained rapidly on the Piper, and on the final turn toward the airport, collided with it. Evidence indicates that the Piper, at an altitude of approximately 200 feet was in the process of completing a left turn for a landing approach when the Stearman, to the left rear and at about the same altitude, banked for a left gliding turn and overtook the Piper.

The propeller and left upper wing of the Stearman struck the fuselage of the Piper at a point between the cabin and the empennage, causing the fuselage of the Piper to bend upward from the impact, and the aircraft rolled over in an inverted position, in which attitude it fell to the ground and was demolished. The Stearman received minor damage to the struts, left wing, and propeller, and pilot Barbera, uninjured, continued to a safe landing.

**Probable cause.**—Failure of pilot of overtaking aircraft to avoid a preceding aircraft in a landing approach.

**Contributing factor.**—Inexperience of pilot.

#### STEEP CLIMB AFTER TAKE-OFF BRINGS CRASH

A stall which developed during a steep climb immediately following take-off caused the crash at Hays Municipal Airport, Hays, Kans., on March 21, 1940, in which solo pilot Harry B. Graham was seriously injured.

Pilot Graham, in an Aeronca, model E-113 O, took off into a gusty surface wind and at an altitude of about 20 feet the aircraft went into a steep climb. The aircraft then stalled and fell to the ground, striking on its left wing before cartwheeling over onto its right wing, where it came to rest.

**Probable Cause.**—Pilot stalled the aircraft during climb immediately following take-off.

**Contributing Factors.**—1. Gusty surface-wind conditions. 2. Inexperience of the pilot.

**Comment.**—Steep climbs at low altitude are hazardous, even in smooth air. When attempted in gusty air, the danger is much greater.

#### UNINTENTIONAL SPIN AT LOW ALTITUDE

Failure of the pilot to effect recovery from an unintentional spin caused the crash on June 28, 1940, near Kings Mountain, N. C., in which solo pilot James R. McKinney and his passenger, Mildred Harrelson, were fatally injured.

Pilot McKinney, accompanied by his passenger, took off from the Shelby, N. C., Airport on a pleasure flight during



## Civil Aeronautics Board Amends Accident-Notification Procedure

### New Regulation Embodies Detailed Instructions for Preservation of Wreckage

An amendment to the Civil Air Regulations requiring immediate notification of the Board or the Administrator of Civil Aeronautics in case of any serious civil aircraft accident has been announced by the Civil Aeronautics Board. Detailed instructions also were given as to the rules for preservation of wreckage and the conditions under which its removal will be approved.

Any airline accident or accident resulting in serious or fatal injury to any person or any accident known or believed to have resulted from a structural failure in flight is included as a "serious" accident. In the case of non-air-carrier accidents, the pilot is responsible for the notification "in person or by cable, telegraph, telephone, or radio," but if he is incapacitated, the owner or lessee or any other person who authorizes the operation of the aircraft is charged with notifying the authorities. In the case of airlines, the company is responsible for the notification.

the early morning of July 25. He flew to a small field near Kings Mountain, where he landed. A few minutes later he again took off, circled Kings Mountain, and headed in the direction of Shelby. About 2 minutes later the airplane was observed to execute one loop and then to enter another. The airplane stalled at an altitude of approximately 600 feet as it neared the top of the second loop, and fell off to the right in a spin which continued until it struck the ground and was demolished. Pilot McKinney had recorded 7 hours of flying experience. The aircraft involved was a Taylorcraft, model BC, powered by a Continental A-50-5 engine.

**Probable Cause.**—Failure of the pilot to effect recovery from an unintentional spin.

**Contributing Factor.**—Inexperience of the pilot.

#### GLIDER UNDERSHOOTS FIELD

An undershot landing, brought about through inexperience of the pilot with the type aircraft involved, caused the crash at Tarzana Airport, Tarzana, Calif., on November 26, 1939, in which pilot Allen L. Patterson was seriously injured.

The duty of the pilot or owner does not end with the notification. He must prepare a written report of the accident on forms which are supplied by the C. A. B. and submit the report to the nearest branch office of the Board without delay.

An accident under these requirements is defined as an occurrence which takes place while an aircraft is being operated as such, which results in personal injury or death or marked or appreciable damage to the aircraft.

The amendment goes into greater detail than the original regulation in outlining the conditions which permit the removal of wreckage. The regulation permits removal under the following circumstances:

1. When necessary for giving assistance to persons injured or trapped in the wreckage;
2. When necessary in the interest of public safety;
3. When specific permission shall have been granted by an officer of the Civil Aeronautics Board or of the Administrator of Civil Aeronautics; or
4. When prompt movement of the aircraft is necessary to protect it from further serious damage and it is impossible to secure immediate communication with any person authorized in (3) to direct the removal.

However, the wreckage must be moved with the minimum possible destruction of material. A record, as complete and accurate as possible, of the original position and condition of the wreckage must be made.

The Board also reserves the right to direct the removal of any wreckage for purposes of preservation.

(For full text of this Amendment, See REGULATION 138, p. 67.)

## Tabulation of December Accidents

Although the number of people holding active pilot certificates continued to increase during December 1940, the number of fatal accidents remained at 13, identical with the previous month and with December 1939, the Civil Aeronautics Board reported.

The Board's monthly summary of civil aviation accidents shows that in 1939 both November and December were free of airline fatalities, while in 1940 one scheduled domestic airline fatal accident was reported in each month those occurring at Salt Lake City, Utah, on November 4, and at Chicago, Ill., on December 4. As shown in the Board accident tables, scheduled operations of United States air-carriers over foreign routes were conducted without a fatal accident during December. The Board estimated that domestic airlines flew over 9,000,000 revenue-miles and carried almost 250,000 revenue-passengers.

In connection with the 13 accidents of the month, the Board estimated that the number of people holding active pilot certificates had increased from the November 30 figure of 61,478 to 65,000 at the end of the year. Board figures showed that no fatal accidents were recorded for solo-instructional or charter-flying operations during the month of December.

A comparative tabulation follows which shows the number of fatal accidents occurring during the 2 months in both 1939 and 1940:

### Civil Aviation Fatal Accidents

(Monthly Comparative Figures)

	December	November
1940-----	13	3
1939-----	13	19

Based on preliminary information, the following tabulation is given for the 12 non-air-carrier accidents which happened in December 1940:

### Non-Air-Carrier Fatal Accidents

	Instructional		Pleasure		Commercial		Other	Total
	Solo	Dual	Local	Cross country	Local	Cross country		
Collided with trees.....	-----	-----	-----	-----	-----	-----	1	1
Collided with other aircraft.....	-----	12	-----	-----	-----	-----	1	3
Turn at low altitude.....	-----	-----	1	-----	-----	-----	-----	1
Stalled at low altitude.....	-----	-----	-----	1	-----	-----	-----	1
Lost enroute <sup>1</sup> .....	-----	-----	-----	-----	-----	-----	1	1
Complete data not yet available.....	-----	-----	-----	-----	-----	-----	5	5
<b>Total</b> .....	-----	2	1	1	-----	-----	8	12

<sup>1</sup> Both civilian pilot training program accidents—1 involved C. P. T. solo, pilot and C. P. T. dual flight. The other involved dual C. P. T. flight and a naval aircraft.

<sup>2</sup> Student pilot with 2 passengers.

<sup>3</sup> Ferrying flight. Presumably fatal. En route to Canada and not located at this time.

# Air Transportation

## Pan American Authorized To Use Southern Route On Atlantic Service

### Board Permits West-Bound Flights via Bolama, Port of Spain, and San Juan

The Civil Aeronautics Board has granted an exemption order to Pan American Airways, Inc., authorizing the company to route its west-bound flights from Europe to the United States via the intermediate points Bolama, Portuguese Guinea, Port of Spain, Trinidad, and San Juan, P. R., during the winter months from December 1, 1940, to May 1, 1941. The present authorized route runs from Lisbon, Portugal, via the intermediate points Horta, the Azores, Hamilton, Bermuda, to New York, N. Y., and the exemption order is designed to permit the alternative routing when weather conditions at Horta make operations via that point inadvisable.

The Board based its decision on the emergency in west-bound traffic from Europe and on the undue burden created by the adverse weather conditions involved in operations via Horta, which last winter cut west-bound trans-Atlantic trips to 60 percent of schedules and seriously delayed many of those that came through. The Board stated that:

(1) Experience during current winter months at Horta shows the same difficulties as those last year.

(2) Improvements in the company's aircraft in the past year now make possible nonstop flights east-bound from Bermuda to Lisbon with considerable payload but on west-bound flights against prevailing headwinds, a refueling stop at Horta is necessary, unless payload is severely restricted.

(3) The company has installed landing and air navigation facilities at Bolama and has them available at both Port of Spain and San Juan. The distance between Bolama and Port of Spain is 3,120 statute miles and the winds are favorable, blowing from east to west with trade-wind regularity, which would allow a west-bound payload approximately as great as on the nonstop east-bound flight. The esti-

mated scheduled performance over the new route would be 90 percent.

(4) That the character of the company's trans-Atlantic service is in itself unusual, in that it involves longer over-water flights than any other in the world, with special technical and operating problems, especially in the extraordinary obstacles due to conditions at Horta.

(5) The world-wide emergency, added to the curtailment of steamship service between the United States and Europe, has created a large volume of urgent west-bound traffic, which has been materially disrupted by the irregularity of the company's winter service. As a result, abnormally heavy mail loads displace passengers on some flights.

(6) That the routing of west-bound flights as proposed by applicant will not result in greater United States mail payments per trip to applicant than it is at present receiving; that the postal revenues of the United States will not be adversely affected by the proposed routing of west-bound flights via Bolama and Port of Spain.

The Board stated further that Pan American would be allowed to carry passengers and property between Lisbon and Bolama, and between Port of Spain

(See Bolama, page 67)

## American Granted Bridgeport Stop

The Civil Aeronautics Board has granted American Airlines, Inc., an amendment to its certificate of convenience and necessity for route No. 18 between the terminal points New York, N. Y., and Newark, N. J., and Boston, Mass., to include a new intermediate stop at Bridgeport, Conn.

The Board gave as its reasons for favorable consideration the mail speed-up to New York City for important west- and south-bound connections that would result from the new stop, and that many industries engaged on the national de-

fense program at Bridgeport would be aided. Neither the airport at New Haven, already a stop on the route, nor that at Bridgeport are usable at present, but the record indicates that the latter would be ready for service in June and that in New Haven, which has not been in condition for large planes since 1937, should be completed in July.

New Haven is only a few miles from Bridgeport, but the Board stated that: "As a general proposition there would appear to be little justification for the inauguration of air service to a point located approximately 16 miles from a city already designated as an intermediate point, particularly where ground transportation facilities between such points are adequate. However, in the instant case, it must be recognized that petitioner operates a large number of schedules daily over the route, and that no material reduction in the number of such schedules appears likely. It is clear, therefore, that petitioner would be able to provide service to Bridgeport and New Haven on different schedules, thus eliminating the disadvantages which would result if both points were to be served on a single flight. Petitioner's proposal will enable it to provide direct transportation to an important industrial community without an undue burden on existing schedules, and without excessive costs either to the carrier or to the Government."

Other intermediate points on route No. 18 are: Providence, R. I., Springfield, Mass., and Hartford, Conn.

## STATISTICAL SUMMARY



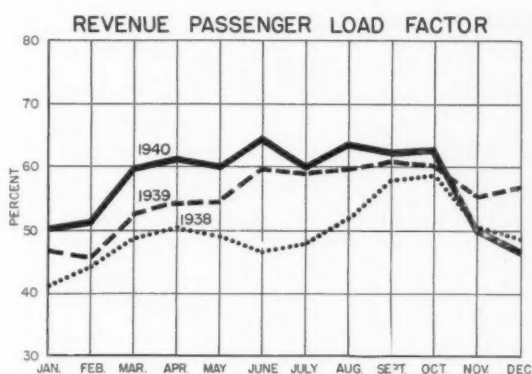
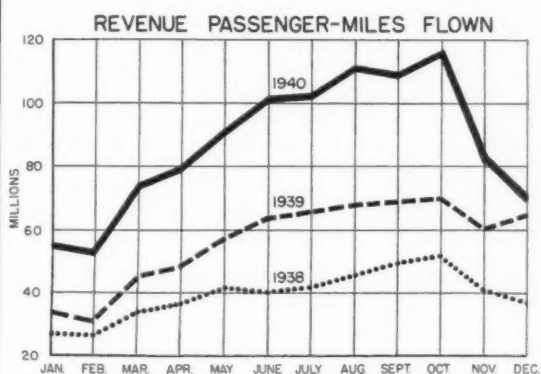
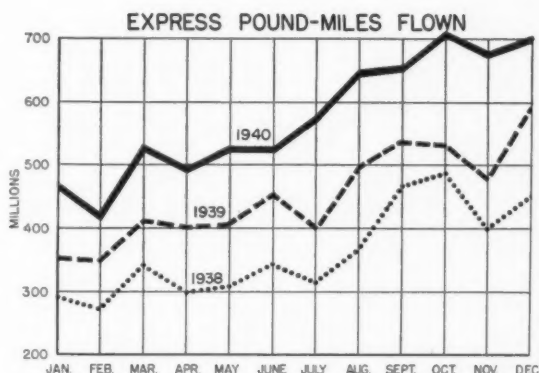
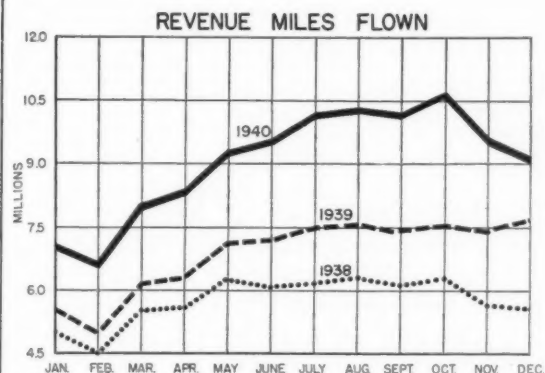
Domestic air carrier traffic statistics for December 1940 continued to show decreases in three of the four categories measured when compared with preceding months, but still were above the comparable results for December 1939 in most classifications.

The scheduled domestic carriers in December flew 9,142,024 revenue miles, an increase of 18.22 percent over December 1939, while revenue passengers carried totaled 183,402, an increase of 14.05 percent over the total for the like 1939 month.

Revenue-passenger miles flown reached 69,757,928, a gain of 7.29 percent over December 1939, and express pound-miles flown were 724,214,363, up 21.69 percent.

The revenue-passenger load factor for December 1940 was 45.50 percent compared with 56.97 percent in December 1939.

## Domestic Air Carrier Traffic Statistics for 1938, 1939, and 1940



## Domestic Air Carrier Traffic Statistics for December 1940

Operator	Revenue miles flown		Revenue passengers carried		Revenue passenger-miles flown		Express pound-miles flown		Revenue passenger load factor (percent)	
	December 1940	Percent change over 1939	December 1940	Percent change over 1939	December 1940	Percent change over 1939	December 1940	Percent change over 1939	December 1940	December 1939
American Airlines, Inc.	2,236,671	17.28	60,591	14.12	21,930,317	6.09	227,144,647	28.21	54.58	67.35
Boeing Air Lines, Inc.	409,582	31.67	9,064	45.40	2,062,895	32.91	19,384,483	67.46	38.55	63.80
Chicago & Southern Air Lines, Inc.	129,431	-18.07	2,739	22.44	1,013,050	9.83	6,997,440	38.40	40.94	58.37
Continental Air Lines, Inc.	118,342	18.75	1,105	21.30	351,002	27.91	921,373	109.67	29.59	43.04
Delta Air Corporation	177,512	17.00	3,633	14.32	1,004,965	17.03	2,616,224	-6.66	46.67	56.60
Eastern Air Lines, Inc.	1,531,487	38.07	32,291	34.31	14,406,413	25.13	98,881,647	20.25	49.21	56.41
Inland Air Lines, Inc.	95,157	18.37	946	22.54	244,665	24.24	688,602	57.85	25.75	24.50
Mid-Continent Airlines, Inc.	178,615	68.31	1,951	26.85	509,590	28.52	1,528,097	21.48	22.81	37.36
National Airlines, Inc.	116,875	63.27	2,300	76.79	563,271	98.82	1,638,351	261.22	40.11	39.60
Northeast Airlines, Inc.	61,189	7.89	1,625	19.13	237,761	15.15	347,642	-5.34	38.86	36.40
Pennsylvania-Central Airlines Corporation	481,797	3.56	6,887	-14.47	2,862,504	-8.25	31,833,080	48.25	29.62	40.19
Transcontinental & Western Air, Inc.	327,411	5.78	12,266	16.27	2,248,861	22.57	14,501,283	38.38	35.35	59.68
United Air Lines Transport Corporation	1,309,880	15.08	19,717	-0.77	9,620,466	1.49	102,528,338	18.94	45.06	50.44
Western Air Express Corporation	1,766,488	13.75	24,392	1.23	11,121,073	-8.48	197,530,124	6.37	43.50	58.20
Wilmington-Catalina Airlines, Ltd.	196,861	5.14	3,131	13.11	868,175	-11.69	17,121,052	15.33	31.54	44.27
Wilmington-Catalina Airlines, Ltd.	4,706	18.84	764	12.68	22,920	12.68	331,980	35.63	49.48	52.07
<b>Total</b>	<b>9,142,024</b>	<b>18.22</b>	<b>183,402</b>	<b>14.05</b>	<b>69,757,928</b>	<b>7.29</b>	<b>724,214,363</b>	<b>21.09</b>	<b>45.50</b>	<b>56.97</b>

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# CIVIL AERONAUTICS BOARD

## OFFICIAL ACTIONS



### Abstracts of Opinions, Orders, and Regulations

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FOR THE PERIOD JANUARY 15-31, 1941

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#### ORDERS

ORDER No. 816: *Reopened proceeding in TWA application providing for acquisition of Marquette.*

The Board on January 16 reopened the proceeding in the matter of the application of Transcontinental & Western Air, Inc., for the approval of a contract providing for the acquisition of Marquette Airlines, Inc., for the purpose of modifying a condition in the Board's approval order (Order, Serial No. 769) by extending the time for filing the escrow agreement, relative to the purchase price, to February 3, 1941.

ORDER No. 817: *Authorized change of Houston-Memphis route designation.*

The Board on January 17 authorized change of the Houston-Memphis route designation from No. 52 to No. 53, in the certificate of Chicago & Southern Airlines.

ORDER No. 818: *Penn-Central denied permission to intervene in Eastern's Savannah application.*

The Board on January 17 denied Pennsylvania-Central Airlines Corporation permission to intervene in the application of Eastern Air Lines, Inc., for an amendment to its certificate of public convenience and necessity for route No. 10 so as to include Savannah, Ga., as an intermediate stop.

ORDER No. 819: *UAL granted permission to intervene in the application of Pacific Coast Airlines.*

The Board on January 17 granted United Air Lines Transport Corporation

permission to intervene in the application of Pacific Coast Airlines, Inc., and Western Air Express Corporation for certificates of public convenience and necessity authorizing air transportation between Los Angeles and Sacramento, Calif.

ORDER No. 820: *G & G Airlines permitted to withdraw its application.*

The Board on January 17 granted request of G & G Airlines Co., Ltd., to withdraw its application for a certificate of public convenience and necessity authorizing air transportation between Phoenix, Ariz., and Boulder City, Nev.

ORDER No. 821: *Private pilot certificate of Richard Hirsch suspended for 60 days.*

The Board on January 21 suspended for a period of 60 days private pilot certificate No. 63927, held by Richard L. Hirsch, Cape Girardeau, Mo., for piloting an aircraft carrying passengers for hire, and other violations of the Civil Air Regulations.

ORDER No. 822: *Private pilot certificate of Maxwell Holder revoked.*

The Board on January 21 revoked private pilot certificate No. 92988-41, held by Maxwell R. Holder, Charlotte, N. C., for piloting an aircraft over a congested area at an altitude of approximately 300 feet and other violations of the Civil Air Regulations.

ORDER No. 823: *Consolidated Applications of Pan American and American Export into one proceeding.*

The Board on January 21 consolidated into one proceeding for the purpose of

hearing the application of Pan American Airways, Inc., for a certificate of public convenience and necessity authorizing air transportation between Guatemala City, Guatemala, and New Orleans, La., and the application of American Export Airlines, Inc., for a certificate of public convenience and necessity authorizing air transportation between New Orleans, La., and Panama City, Panama.

ORDER No. 824: *Granted United permission to intervene in applications of TWA and Western Air.*

The Board on January 21 granted United Air Lines Transport Corporation permission to intervene in the applications of Transcontinental & Western Air, Inc., and Western Air Express Corporation for a certificate of public convenience and necessity and amendment of existing certificate covering service between Los Angeles and San Francisco, Calif.

ORDER No. 825: *Braniff Airways granted permission to intervene in the application of Wichita Falls Air Transport Co.*

The Board on January 21 granted Braniff Airways, Inc., permission to intervene in the application of Wichita Falls Air Transport Co. for a certificate of public convenience and necessity authorizing air transportation between Oklahoma City, Okla., and Midland, Tex.

ORDER No. 826: *Dismissed applications for approval of interlocking relationships.*

The Board on January 21 dismissed applications of Van Dyck Fort, David L. Gray, Marion J. Wise, and Railway Express Agency, Inc., for approval of interlocking relationships.



ORDER No. 827: *Approved certain interlocking relationships.*

The Board on January 21 approved interlocking relationships existing by the holding of positions by Frederick H. Crawford and Raymond G. Lochiel with Pennsylvania-Central Airlines Corporation and Pittsburgh-Butler Airport Corporation.

ORDER No. 828: *Approved an agreement between Braniff and Chicago & Southern Air Lines.*

The Board on January 21 approved an agreement (Contract C. A. B. No. 115) between Braniff Airways, Inc., and Chicago & Southern Air Lines, Inc., relating to the release of liability for damages resulting from radio communications.

ORDER No. 829: *Approved an agreement between Braniff and Delta Air Corporation.*

The Board on January 21 approved an agreement (Contract C. A. B. No. 116) between Braniff Airways, Inc., and Delta Air Corporation, relating to the release of liability for damages resulting from radio communications.

ORDER No. 830: *Approved an agreement between Braniff and Mid-Continent Airlines.*

The Board on January 21 approved an agreement (Contract C. A. B. No. 117) between Braniff Airways, Inc., and Mid-Continent Airlines, Inc., relating to the release of liability for damages resulting from radio communications.

ORDER No. 831: *Approved an agreement between Braniff and Eastern Air Lines.*

The Board on January 21 approved an agreement (Contract C. A. B. No. 118) between Braniff Airways, Inc., and Eastern Air Lines, Inc., relating to the release of liability for damages resulting from radio communications.

ORDER No. 832: *Directed certification and filing in Circuit Court of Appeals certain testimony which was withheld from public disclosure.*

The Board on January 21 directed the certification and filing in the Circuit Court of Appeals for the Second Circuit of certain testimony which was withheld from public disclosure by Order, Serial No. 777, in the matter of the ap-

## Notice

The CIVIL AERONAUTICS JOURNAL carries in this section an abstract of all orders, economic regulations, and rules, and a syllabus of all opinions issued by the Civil Aeronautics Board during the half month ending 2 weeks prior to the date of publication.

### ECONOMIC OPINIONS

All opinions of the Board in economic proceedings are printed individually. They may be obtained on a subscription basis. These are "advance sheets" of the material which later will make up bound volumes of CIVIL AERONAUTICS BOARD REPORTS.

The subscription price for each volume of advance sheets of opinions is \$1. Remittance should be made to the Superintendent of Documents, Government Printing Office, Washington, D. C.

Such subscriptions are governed by the quantity of pages rather than by specific periods of time. Current subscriptions include all opinions issued since June 30, 1940, and will continue until the consecutive pagination reaches approximately 800.

NOTE.—Advance sheets of economic opinions also may be purchased individually. As each opinion becomes available in printed forms, the title of the case, docket number, order number, date, and price will be listed here. All orders must be sent to the Superintendent of Documents.

Opinions in cases of suspension, revocation, or denial of airman certificates are available in mimeograph form only. Verbatim copies of these may be obtained by addressing a request for each individual order and opinion desired to the Publications and Statistics Division, Civil Aeronautics Administration, Washington, D. C.

### AMENDMENTS TO REGULATIONS

The full text of all amendments to the Civil Air Regulations, except for exceedingly long ones which may be abstracted, also is carried in this section.

On the back cover of each issue appears a table showing the status of the Civil Air Regulations and the effective amendments thereto. Full instructions for obtaining parts and amendments accompany the table.

Applications of American Export Airlines, Inc., for certificates of public convenience and necessity.

ORDER No. 833: *Authorized temporary holding of certain interlocking relationships.*

The Board on January 22 authorized temporary holding of certain interlock-

ing relationships existing or proposed to exist by reason of the employment of Sigurd Wien as Managing Officer of Mirow Air Service, while continuing to be President, Director, and stockholder of Wien Alaska Airlines, Inc.

ORDER No. 834: *Permitted withdrawal of application and complaint of Braniff Airways.*

The Board on January 24 permitted withdrawal of application and complaint of Braniff Airways, Inc., against certain unfair practices and methods of competition of American Airlines, Inc.

ORDER No. 835: *Private pilot certificate of Harold Thompson revoked.*

The Board on January 24 revoked private pilot certificate No. 94124 held by Harold S. Thompson, Swampscott, Mass., for piloting an aircraft carrying passengers for hire and other violations of the Civil Air Regulations. (Opinion and order.)

ORDER No. 836: *Temporarily exempted Pan American from certain provisions of the Civil Aeronautics Act of 1938.*

The Board on January 17 temporarily exempted Pan American Airways Co. (Del.) from provisions of section 401 (a) of the Civil Aeronautics Act of 1938, as amended, insofar as the provisions would otherwise prevent said air carrier from engaging in air transportation with respect to passengers, property, and mail from Lisbon, Portugal, to New York, N. Y., on westbound flights via the intermediate points Bolama, Portuguese Guinea; Port of Spain, Trinidad; and San Juan, Puerto Rico, during the period from January 17, 1941, to May 1, 1941. (Approved by President Roosevelt on January 22.)

ORDER No. 837: *Granted petition of Inland Air Lines for reargument and reconsideration of its application.*

The Board on January 24 granted the petition of Inland Air Lines, Inc., for reargument and reconsideration of the opinion and order of the Board, in the matter of the application of said air carrier for an amendment of its certificate of public convenience and necessity for Route No. 35 to authorize air transportation to and from Alliance, Nebr.

ORDER No. 838: *Amendment of order temporarily exempting Pan American-Grace from certain provisions of the Civil Aeronautics Act of 1938.*

The Board on January 27 amended its order No. 684, temporarily exempting Pan American-Grace Airways, Inc., from certain provisions of the Civil Aeronautics Act of 1938, so as to permit said air carrier to render scheduled air transportation of persons, property, and mail to and from Balboa, C. Z., as an intermediate point on its authorized route between the terminal point, Cristobal, C. Z., and the intermediate point, Cali, Colombia, by continuing said order in effect until April 30, 1941.

ORDER No. 839: *Amendment of order temporarily exempting Pan American Airways from certain provisions of the Civil Aeronautics Act of 1938.*

The Board on January 27 temporarily exempted Pan American Airways, Inc., from certain provisions of the Civil Aeronautics Act of 1938 to permit said company to engage in air transportation service between the terminal point Miami, Fla., and the terminal point, Balboa, C. Z., in lieu of its terminal point, Cristobal, C. Z., by continuing said order in effect until April 30, 1941.

ORDER No. 840: *Eagle Air Service ordered to show cause.*

The Board on January 27 directed Eagle Air Service, Inc., a corporation, holder of air agency certificate No. 797, to appear before an examiner of the Board on such date and at such place in the vicinity of New York City, N. Y., as shall be designated by the examiner and show cause why said air agency certificate should not be revoked in whole or in part or further suspended in whole or in part.

ORDER No. 841: *Suspended private pilot certificate of Richard F. Kates.*

The Board on January 28 suspended for a period of 6 months private pilot certificate No. 30828-40 held by Richard F. Kates, of San Diego, Calif., for piloting an aircraft over a congested area at an altitude of approximately 600 feet and other violations of the Civil Air Regulations.

ORDER No. 842: *Revoked private pilot certificate of Thomas A. Cootey.*

The Board on January 28 revoked private pilot certificate No. 9135-40 held by Thomas A. Cootey, of Northfield, Vt., for piloting an aircraft acrobatically while not equipped with a proper parachute, and other violations of the Civil Air Regulations.

ORDER No. 843: *Revoked private pilot certificate of Robert M. Howe.*

The Board on January 28 revoked private pilot certificate No. 8129-40 held by Robert M. Howe, of Northfield, Vt., for piloting an aircraft acrobatically while not equipped with a proper parachute, and other violations of the Civil Air Regulations.

ORDER No. 844: *Dismissed application of Pacific Alaska for consolidation of certificates.*

The Board on January 28 dismissed the application of Pacific Alaska Airways for consolidation of its certificates of convenience and necessity for air transportation between certain points in Alaska and Canada. The Board also consolidated for purposes of hearing applications of Alaska Air Lines, Inc., for a certificate of convenience and necessity and Pacific Alaska Airways for an amendment to its existing certificate.

ORDER No. 845: *Granted American Airlines permission to intervene in the applications of United and TWA.*

The Board on January 28 granted American Airlines permission to intervene in the applications of United Air Lines Transport Corporation and Transcontinental & Western Air, Inc., for certificates of public convenience and necessity authorizing air transportation between Boston and Cleveland, and Boston and Pittsburgh, via certain intermediate points.

ORDER No. 846: *Granted Boston Port Authority permission to intervene in the application of United and T. W. A.*

The Board on January 28 granted Boston Port Authority permission to intervene in the applications of United Air Lines Transport Corporation and Transcontinental & Western Air, Inc., for certificates of public convenience and necessity authorizing air transportation between Boston and Cleveland, and Boston and Pittsburgh, via certain intermediate points.

ORDER No. 847: *Eastern granted permission to intervene in consolidated proceeding.*

The Board on January 28 granted Eastern Air Lines, Inc., permission to intervene in the applications of Pan American Airways, Inc., and American Export Airlines, Inc., for certificates of public convenience and necessity authorizing air transportation between New Orleans, La., and points in Central America.

ORDER No. 848: *Braniff granted permission to intervene in applications of Pan American and American Export.*

The Board on January 28 granted Braniff Airways, Inc., permission to intervene in the applications of Pan American Airways, Inc., and American Export Airlines, Inc., for certificates of public convenience and necessity authorizing air transportation between New Orleans, La., and points in Central America.

ORDER No. 849: *Suspended solo pilot certificate of Grace F. Desjardin.*

The Board on January 29 suspended solo pilot certificate No. 74716 held by Grace F. Desjardin, of Worcester, Mass., for a period of 90 days for piloting an aircraft carrying a person other than a certified instructor and other violations of the Civil Air Regulations.

ORDER No. 850: *Approved an agreement concerning redemption of steamship tickets.*

The Board on January 31 approved an agreement (Contract C. A. B. No. 98) between Wilmington-Catalina Airlines, Ltd., and Wilmington Transport Co., concerning redemption of steamship tickets.

ORDER No. 851: *Approved an agreement relating to furnishing of services and facilities at Des Moines.*

The Board on January 31 approved an agreement (Contract C. A. B. No. 165) between United Air Lines Transport Corporation and Mid-Continent Airlines, Inc., relating to the furnishing of certain services and facilities at Des Moines, Iowa.

ORDER No. 852: *Approved in part application of Vanderbilt and Eastern.*

The Board on January 31 approved in part the application of Harold S. Vanderbilt and Eastern Air Lines, Inc., for approval of certain interlocking relationships.

ORDER No. 853: *Denied motion for consolidation of applications.*

The Board on January 31 denied motion of Pan American Airways, Inc., for consolidation of applications of American Export Airlines, Inc., and Pan American Airways, Inc., for certificates of convenience and necessity with the application of American Export Airlines, Inc., for approval of the Acquisition of TACA, S. A.

## REGULATIONS

REGULATION No. 138: *The Board on January 17 adopted Amendment No. 92 of the Civil Air Regulations, entitled "Report and Notification of Accidents." The amendment, which makes changes in three sections of Part 01 of the CAR, is as follows:*

Effective February 1, 1941, Part 01 of the Civil Air Regulations is amended by striking out section 01.38 thereof and the footnote appended thereto and inserting in lieu thereof the following:

"01.38 Report and notification of accidents.—A written report shall be made without delay to the Civil Aeronautics Board at its nearest branch office of every accident involving a civil aircraft which occurs within the United States\* and every accident involving a certificated aircraft of the United States, without regard to where it occurs. Such report shall be made upon an accident report form furnished by the Civil Aeronautics Board. In addition, the Civil Aeronautics Board, or the Administrator of Civil Aeronautics, shall be notified immediately in person or by cable, telegraph, telephone, or radio, of the occurrence of any air carrier accident, or accident resulting in serious or fatal injury to any person, or accident known or believed to have resulted from a structural failure in flight. This requirement of immediate notification shall apply to every such accident involving civil aircraft which occurs within the United States and every such accident involving air carrier aircraft without regard to where it occurs. The pilot in command of a nonair carrier aircraft involved in the accident shall make the report and notification of the accident as required by this section unless he is incapacitated, in which event the operator\*\* of the aircraft shall make such report and notification. The operator of an air carrier aircraft involved in an accident shall make such report and notification.

"01.37 Removal.—  
"(a) No aircraft or part thereof, involved in an air carrier accident or in an accident resulting in serious or fatal injury to any person, or accident known or believed to have resulted from structural failure in flight shall be moved or disturbed, except:

\* "United States", as used in these regulations, means the States, the territories and possessions, and the territorial waters surrounding them unless a different meaning is specifically indicated.

\*\* "Operator" includes the owner or lessee or any other person that causes or authorizes the operation of the aircraft.

"(1) When necessary for giving assistance to persons injured or trapped in the wreckage;

"(2) When necessary in the interest of public safety;

"(3) When specific permission shall have been granted by an officer or employee of the Civil Aeronautics Board or of the Administrator of Civil Aeronautics;

"(4) When prompt movement of the aircraft is necessary to protect it from further serious damage and it is impossible to secure immediate communication with any person authorized in (3) to direct the removal.

"(b) Any movement of the aircraft or any part thereof under subsections (a) (1), (a) (2), or (a) (4) shall be so accomplished as to entail the minimum possible disturbance of the material concerned until such time as further or permanent disposition may be directed by the person in charge of the investigation of the accident for the Civil Aeronautics Board. In the event of any movement of the aircraft under subsection (a) (4), or under subsection (a) (2) except when the danger to public safety is such as to permit of no delay whatever, the movement of the aircraft shall be preceded by the making of a record, as complete and accurate as possible under the circumstances, of the original position and condition of the wreckage.

"(c) The requirements of this section shall be applicable with respect to all accidents as described in subsection (a) hereof, which occur within the continental United States (including Alaska) and with respect to all air-carrier accidents without regard to where they occur.

"01.38 Preservation of wreckage.—An aircraft, aircraft engine, propeller or appliance, or any part or parts thereof, shall, when directed by the Civil Aeronautics Board or any authorized representative thereof, be preserved and removed to such place or places as directed for purposes of safekeeping, inspection, testing, or any other purpose consistent with the powers and duties granted the Civil Aeronautics Board under section 702 (a) of the Civil Aeronautics Act of 1938, as amended. This requirement shall be applicable with respect to any civil aircraft involved in an accident occurring within the United States and to any certificated aircraft of the United States involved in an accident wherever it occurs."

REGULATION No. 139: *The Board on January 21 adopted Amendment No. 93 of the Civil Air Regulations, entitled "Amending Regulation Governing Dropping Objects from Aircraft." The amendment, making changes in one section of Part 60 of the CAR, follows:*

Effective January 21, 1941, section 60.247 of the Civil Air Regulations is amended by inserting a period after the word "interest" therein and striking therefrom the following: "And provided further, That such exemption shall not include bombing and aerial gunnery within the limits of a civil airway."

REGULATION No. 140: *Adopted Section 287.3 of the Economic Regulations.*

The Board on January 27 adopted, effective the same day, section 287.3 of the Economic Regulations, providing that "no person who has been associated with the Civil Aeronautics Board as a member, officer, or employee thereof shall be permitted, within 6 months after the date of termination of such association, to appear before the Board in behalf of, or to represent in any manner, any private party in connection with any proceeding which was pending before the Board at the time of his association with the Board."

## Bolama

(Continued from page 62)

and New York, in order to make use of the much greater pay load which could be carried on those sections of the route than was possible on the long overwater flight from Bolama to Port of Spain. However, the company was ordered to carry only Lisbon-New York passengers and property on the Bolama-Port of Spain section, unless permission was granted in special cases where justification was shown.

The order was approved by the President.

## Airport Projects Approved

(Continued from page 59)

### OREGON

MEDFORD.—\$78,451 for W. P. A. project, for improvements to E-W runway by excavating, draining installing drainage pipe, drainage manholes, catch basins, gravel backfill, fine grading, placing gravel sub-base, placing asphaltic concrete base, grading and constructing turn-around and concrete loading apron. Install flush-type contact lights and all appurtenant and incidental work at municipal airport.

### PENNSYLVANIA

MONTOURSVILLE.—\$39,399.87 for N. Y. A. project, for hangar, workshop and schoolrooms for the Vocational School of the City of Williamsport, Pa., at municipal airport.

### TENNESSEE

NASHVILLE.—\$35,693 for W. P. A. project, for construction of a concrete apron (10,150 sq. yds.) with 5 Aqua System Gas Pits therein; also involves construction of an 8-inch diameter cast iron supply line for fire protection and Aqua System operation and performing other incidental and appurtenant work. Also includes operation of a quarry to produce crushed stone for use on this project at municipal airport.

### TEXAS

BROWNSVILLE.—\$480,372 for W. P. A. project, consisting of enlargement of present airport; installation of two paved runways; fences, complete drainage system; adequate parking area for mass flights of airplanes; complete lighting, including boundary and range lights, obstruction lights; and contact lights for the principal runway; and incidental and appurtenant work at Brownsville-Pan American Municipal Airport.

DALLAS.—\$239,216 for W. P. A. project, consisting of extending runways, installing drainage system, removing old runways, leveling and sodding field, and performing incidental and appurtenant work at Love Field.

### VERMONT

BERLIN.—\$356,838 for W. P. A. project, for construction of extension to runway No. 2, southerly 1,850 by 150 feet and widening present hard surface on runway No. 2, 25 feet each side and extension of runway No. 1, northwesterly 1,450 by 150 feet and widening of present runway No. 1, with hard surface 25 feet each side, together with all drainage, excavation, borrow fill, clearing, to provide runways and landing areas full length with width of 500 feet, including full-length hard surface with the width 150 feet. Extensions will necessitate the relocation of present town roads to eliminate crossing of runways, together with all incidental or appurtenant work at Barre-Montpelier Municipal Airport.

### VIRGINIA

WILLIAMSBURG.—\$500 for C. C. C. project for enlarging runways of airport at the College of William and Mary.

# Status of Parts of the Civil Air Regulations and Amendments

*As of February 15, 1941*

All persons affected by the Civil Air Regulations, including those preparing for examinations for certificates, may obtain required Parts of the Regulations from the Publications and Statistics Division, Civil Aeronautics Administration, Washington, D. C., without charge.

## ONLY PARTS NEEDED SUPPLIED FREE

For example, *pilots* are governed in general by Parts 01., 20., and 60.; *aircraft mechanics* by Parts 01., 04., 15., 18., 24., and Section 60.32; and *aircraft engine mechanics* by Parts 01., 04., 13., 14., 18., and 24. It should be remembered also that individuals are entitled to receive free of charge only those portions of the C. A. R. which directly govern the activity in which they are engaged.

## HOW TO OBTAIN PARTS, AMENDMENTS, AND MANUALS

Those persons not affected by the C. A. R., but desiring all or any part of the

Regulations for other purposes, may obtain them as follows: Those Parts on which a price is listed in the tabulation below are on sale by the Superintendent of Documents, U. S. Government Printing Office (shown as G. P. O. in table), Washington, D. C., and are not available for free distribution except as stated in the first paragraph.

Eventually, all Parts will be placed on sale; meanwhile, Parts not yet on sale (carrying remark in tabulation below "order from C. A. A. only") may be obtained without charge from the C. A. A. upon demonstration of valid interest on the applicant's part.

All amendments to the Civil Air Regulations, and notice of new Parts, are printed in the Official Actions section of the Civil Aeronautics Journal, as released.

The tabulation below carries in the right-hand column the numbers of all amendments to each Part issued subsequent to its publication. However, when

ordering Parts either from C. A. A. or G. P. O. all effective amendments are included. Copies of amendments issued subsequent thereto may be obtained from C. A. A.

Civil Aeronautics Manuals supplementing certain Parts with detailed interpretations of their respective provisions are issued. They are numbered the same as the Parts they supplement, and those Parts accompanied by Manuals carry appropriate notations.

## PARTS CANCELLED AND UNASSIGNED

Cancelled Parts 00. and 03. now incorporated in Part 01.; cancelled Part 23. now incorporated in Part 51.; and cancelled Part 25. now incorporated in Part 24. Parts 90.-96., inclusive, cancelled. All other Part numbers not shown are unassigned.

Bound volumes of the complete Civil Air Regulations are no longer available. Parts and amendments are punched for filing in loose-leaf binders.



